AMENDMENTS TO THE CLAIMS

1. (original) A method for controlling an operating temperature of a video graphics array (VGA) chipset, the method comprising:

    monitoring a rotational speed of a cooling fan installed on the VGA chipset, the rotational speed of the cooling fan being controlled by a fan power;

    monitoring a vital temperature of a graphics processor of the VGA chipset;

    increasing the fan power when the vital temperature is substantially above a first threshold to increase the fan speed;

    decreasing the fan power when the vital temperature is substantially below the first threshold to decrease the fan speed;

    increasing the operating clock speed of the processor when the vital temperature is substantially below a second threshold; and

    decreasing the operating clock speed of the processor when the vital temperature is substantially above the second threshold.

2. (original) The method of claim 1 further comprising:

    maintaining the fan power when the vital temperature is substantially equal to the first threshold to maintain the fan speed; and

2

     maintaining the operating clock speed when the vital
         temperature is substantially equal to the second
         threshold.

5   3. (original) The method of claim 1 further comprising:
         increasing an operating voltage of the processor when the
            vital temperature is substantially below a third
            threshold; and
         decreasing an operating voltage of the processor when the
10   vital temperature is substantially above the third
            threshold.

    4. (original) The method of claim 1 wherein the vital temperature
       is obtained from an on-die thermal monitoring transistor of
15   the processor.

    5. (original) The method of claim 1 wherein increasing and
       decreasing the fan power and operating clock speed are
       controlled by relations stored in a random access memory or
20   hard disk electrically connected to the VGA chipset.

    6. (original) The method of claim 1 wherein the first and second
       thresholds are equal.

25   7. (original) A method for controlling an operating temperature
    of a video graphics array (VGA) chipset, the method
    comprising:
         monitoring a rotational speed of a cooling fan installed

3

on the VGA chipset, the rotational speed of the cooling
fan being controlled by a fan power;

monitoring a vital temperature a graphics processor of
the VGA chipset;

5   increasing the fan power when the vital temperature is
substantially above a first threshold to increase the
fan speed;

decreasing the fan power when the vital temperature is
substantially below the first threshold to decrease

10 the fan speed;

increasing the operating voltage of the processor when
the vital temperature is substantially below a third
threshold; and

decreasing the operating voltage of the processor when

15 the vital temperature is substantially above the third
threshold.

8. (original) The method of claim 7 further comprising:

maintaining the fan power when the vital temperature is

20 substantially equal to the first threshold to maintain
the fan speed; and

maintaining the operating voltage when the vital
temperature is substantially equal to the third
threshold.

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9. (original) The method of claim 7 further comprising:

increasing the operating clock speed of the processor when
the vital temperature is substantially below a second

4

threshold; and

decreasing an operating clock speed of the processor when the vital temperature is substantially above the second threshold.

5

10. (original) The method of claim 7 wherein the vital temperature is obtained from an on-die thermal monitoring transistor of the processor.

10　11. (original) The method of claim 7 wherein increasing and decreasing the fan power and operating voltage are controlled by relations stored in a random access memory or hard disk electrically connected to the VGA chipset.

15　12. (original) The method of claim 7 wherein the first and third thresholds are equal.

13. (original) A video graphics array (VGA) chipset with cooling system comprising:

20　　　　　a graphics processor having an operating power controlled by an operating power control signal;

a cooling fan for cooling the graphics processor;

a fan input-output module electrically connected to the fan for transmitting a fan control signal to the fan,

25　　　　　the fan control signal controlling the rotational speed of the fan;

a controller electrically connected to the fan input-output module and the graphics processor, the

5

controller comprising fan logic for generating the fan
control signal based on a vital temperature of the
graphics processor and outputting the fan control
signal to the fan input-output module, and power logic
5   for generating the operating power control signal
based on the vital temperature of the graphics
processor and outputting the operating power control
signal to the graphics processor; and
a temperature transducer connected to the graphics
10   processor for measuring the vital temperature and
outputting the vital temperature to the controller.

14. (original) The cooling system of claim 13 wherein the graphics
processor comprises a clock speed circuit electrically
15   connected to the controller for receiving the operating power
control signal, the graphics processor adjusting an operating
clock speed according to input to the clock speed circuit.

15. (original) The cooling system of claim 14 further comprising
20   a memory electrically connected to the controller for storing
at least a relation relating the operating clock speed of the
graphics processor to the vital temperature.

16. (original) The cooling system of claim 13 wherein the graphics
25   processor comprises a voltage circuit electrically connected
to the controller for receiving the operating power control
signal, the graphics processor adjusting an operating voltage
according to input at the voltage circuit.

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17. (original) The cooling system of claim 16 further comprising
    a memory electrically connected to the controller for storing
    at least a relation relating the operating voltage of the
5   graphics processor to the vital temperature.

18. (original) The cooling system of claim 13 further comprising
    a memory electrically connected to the controller for storing
    at least a relation relating the fan control signal to the
10 vital temperature.

19. (original) The cooling system of claim 13 wherein the
    temperature transducer is an on-die thermal monitoring
    transistor of the graphics processor.
15

20. (original) The cooling system of claim 13 further comprising
    a user interface electrically connected to the controller,
    the user interface comprising a display device and an input
    device for receiving control parameters from an external
20 source; wherein the controller references the control
    parameters to generate the fan control signal and the
    operating power control signal.

21. (new) The method of claim 1 wherein the first and second
25 thresholds are substantially different.

22. (new) The method of claim 7 wherein the first and third
    thresholds are substantially different.

7